

# Frequently Asked Questions about The Iowa Tests



## What are the *Iowa Tests*?

The *Iowa Tests* are a K-12 battery of nationally standardized, norm-referenced achievement tests developed at the University of Iowa, and based on over seventy years of on-going research. The Iowa Tests of Basic Skills is designed for students at grades K-8; The Iowa Tests of Educational Development is designed for students at grades 9-12.

The *Iowa Tests of Basic Skills (ITBS)* measure the skills and achievement of students from kindergarten through grade 8. The *ITBS* provides an in-depth measure of important educational objectives. Tests in reading, language arts, mathematics, social studies, and science yield reliable and comprehensive information both about the development of students' skills and about their ability to think critically.

The *Iowa Tests of Basic Skills* are administered at the beginning of the school year to Utah students enrolled in grades 3, 5, and 8.

The *Iowa Tests of Educational Development* provide objective, norm-referenced information about high school students' development in the skills that are the long-term goals of secondary education – skills that constitute a major part of the foundation for continued learning.

The *Iowa Tests of Educational Development* are administered at the beginning of the school year to Utah students enrolled in grade 11.

## Are the Iowa Tests categorized as norm-referenced tests?

Yes, the Iowa Tests are norm-referenced tests. For these tests, the score interpretations are based on a comparison of the test taker's performance to the performance of other people in a specified reference population (e.g., age groups, grade groups, etc.). Norm-referenced interpretations can involve converting score to scale scores (or standard scores), percentile ranks, stanines, grade equivalents, etc. Norm-referenced interpretations allow educators to get an "external" look at the performance of their students in relation to the rest of the nation.

### What does the developmental standard score (SS) mean?

The developmental standard score (SS) is a number that describes a student's location on an achievement continuum. The table below shows the standard scores that correspond to average performance (mean) of grade groups on the *Iowa Tests* in the autumn of the school year.

### ***Iowa Tests of Basic Skills*** (Survey Battery with Social Studies and Science, Form B)

Fall Administration: Mean of the Developmental Standard Score (SS)

<b>Grade</b>	<b>3</b>	<b>5</b>	<b>8</b>
• Reading Total	176	206	244
• Language Total	176	206	244
• Mathematics Total	174	205	243
• Survey Battery Total	176	206	244
• Social Studies	175	205	243
• Science	175	205	243

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### ***Iowa Tests of Educational Development*** (Complete Battery, Form B)

Fall Norms: Mean of the Developmental Standard Score (SS)

<b>Grade 11</b>	
• Reading Total	269
• Language	270
• Mathematics Total	270
• Core Total with Math Computation	270
• Social Studies	270
• Science	270
• Complete Composite	270

### What is a national percentile rank (NPR) score?

A national percentile rank score compares the achievement of a student or a group of students to the achievement of a national sample of students who are in the same grade and who were tested at the same time of the year (fall, midyear, or spring).

### What is a normal curve equivalent (NCE) score?

These scores are *normalized* standard scores. They have a mean of 50 and a standard deviation of 21.06 in the large norm group from which they were derived. They range from 1 to 99. Because NCEs cover the same score range as percentile ranks (1-99), the two types of scores are sometimes mistakenly interchanged.

NCE scores can be interpreted in much the same way as percentile ranks, but unlike percentile ranks, it is appropriate to average NCEs when describing group performance or when checking growth over time.

**NCE-Percentile Rank-Stanine Conversion Table**

PR	NCE	S9		PR	NCE	S9
1	1	1		51	51	5
2	7	1		52	51	5
3	10	1		53	52	5
4	13	1		54	52	5
5	15	2		55	53	5
6	17	2		56	53	5
7	19	2		57	54	5
8	20	2		58	54	5
9	22	2		59	55	5
10	23	2		60	55	6
11	24	2		61	56	6
12	25	3		62	56	6
13	26	3		63	57	6
14	27	3		64	58	6
15	28	3		65	58	6
16	29	3		66	59	6
17	30	3		67	59	6
18	31	3		68	60	6
19	32	3		69	60	6
20	32	3		70	61	6
21	33	3		71	62	6
22	34	3		72	62	6
23	34	3		73	63	6
24	35	4		74	64	6

25	36	4		75	64	6
26	36	4		76	65	6
27	37	4		77	66	7
28	38	4		78	66	7
29	38	4		79	67	7
30	39	4		80	68	7
31	40	4		81	68	7
32	40	4		82	69	7
33	41	4		83	70	7
34	41	4		84	71	7
35	42	4		85	72	7
36	42	4		86	73	7
37	43	4		87	74	7
38	44	4		88	75	7
39	44	4		89	76	8
40	45	4		90	77	8
41	45	5		91	78	8
42	46	5		92	80	8
43	46	5		93	81	8
44	47	5		94	83	8
45	47	5		95	85	8
46	48	5		96	87	9
47	48	5		97	90	9
48	49	5		98	93	9
49	49	5		99	99	9
50	50	5				

### What is the meaning of a stanine score?

Stanine scores range from 1 to 9 and have an average value of 5. Because stanines are coarse groupings of percentile ranks, they are less precise indicators of student achievement than percentile ranks. Nonetheless, stanines are convenient scores to use to help students and parents identify areas of strength and weakness that might be represented by a set of test scores.

### What is a grade equivalent (GE) score?

The GE is a decimal number that describes performance in terms of grade level and months. For example, if a sixth-grade student obtains a GE of 7.8 on the Vocabulary test, her score is like the one a typical student at the end of the eighth month of seventh grade would likely get on the same Vocabulary test. The GE corresponding to a given raw score on any test indicates the grade level at which the typical student has obtained this raw score. The digits to the left of the decimal point represent the grade and those to the right represent the month within that grade.

The GE only estimates a student's developmental level; it does not provide a

prescription for grade placement. A GE that is much higher or lower than the student's grade level is mainly a sign of exceptional performance.

### **What is the basis for classifying an item as representing critical thinking?**

The items of the *Iowa Tests* were classified on the basis of content and process requirements as part of the test development process. After the tests were developed, each item was classified in terms of the critical thinking demands it requires of most students who answer it correctly. Questions were classified by multiple reviewers from the author team, and a consensus approach was used to obtain final decisions.

When items from the Iowa Tests were classified with regard to critical thinking demands, the notion of a continuum of critical thinking was used, and that continuum was divided loosely into three segments like the one shown below.



On the one end are the tasks that demand high levels of analysis, problem solving, or judgment to be completed. In the middle of the continuum are tasks that require more than recall, but the demands for thinking are lower level or less critical. This three-part division of the critical thinking continuum suggests that those items not classified as requiring critical thinking are not necessarily items that require only recall of factual information or terminology.

### **What is the minimum number of items that must be attempted for a student to receive a score on a subtest?**

Students must mark a minimum number of answers per subtest in order to obtain a score. The table below shows the minimum number of answers required per subtest.

Completion Criteria for Utah's Administration of the Iowa Tests				
	Number of Items			
ITBS	Level 9	Level 11	Level 14	Minimum Number of Items

Reading: Part 1	10	12	14	3
Reading: Part 2	17	20	23	5
Language	43	51	59	12
Math: Part 1	19	23	29	6
Math: Part 2	4	5	6	1
Math: Part 3	8	9	11	2
Social Studies	30	37	43	9
Science	30	37	43	9
		<b>Number of Items</b>		
<b>ITED</b>		<b>Level 17/18</b>	<b>Minimum Number of Items</b>	
Vocabulary		40	10	
Reading Comprehension		44	11	
Language: Revising Written Materials		56	8	
Spelling		30	14	
Mathematics: Concepts and Problem Solving		40	10	
Computation		30	8	
Analysis of Social Studies Materials		50	13	
Analysis of Science Materials		48	12	

**Will a *Lexile* score be reported with the *Iowa Test* scores?**

No, *Lexile* scores will not be reported in relation to the *Iowa Tests*.

**What is the “Core Total” score ?**

A Core Total score is reported for both The Iowa Tests of Basic Skills and The Iowa Tests of Educational Development. The Core Total score is the average of the Reading, Language and Mathematics test scores.

- Reading: Vocabulary + Reading Comprehension
- Language: Spelling + Capitalization + Punctuation + Usage/Expression
- Mathematics: Concepts/Estimation + Problem Solving/Data Interpretation + Computation.
- Core Total: Reading + Language + Mathematics

**What is the “Total Composite” score?**

A Total Composite score is reported for both The Iowa Tests of Basic Skills and The Iowa Tests of Educational Development. The Total Composite score is the average of the Reading, Language, Mathematics, Social Studies and Science test scores.

- Total Composite: Reading + Language + Math + Social Studies + Science